<u>REMARKS</u>

The present application was filed on March 16, 2004 with claims 1-31. Claims 1-31 remain pending, and claims 1, 16 and 31 are the pending independent claims.

In the final Office Action dated March 9, 2007, the Examiner: (i) rejected claims 1-6, 9, 11, 12, 16-21, 24, 26, 27, and 31 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0161763 (hereinafter "Ye") in view of U.S. Patent Application Publication No. 2002/0107858 (hereinafter "Lundahl"), further in view of U.S. Patent Application Publication No. 2003/0158855 (hereinafter "Farnham"); (ii) rejected claims 7, 10, 22, and 25 under 35 U.S.C. §103(a) as being unpatentable over Ye in view of Lundahl, Farnham, and further in view of U.S. Patent No. 6,625,585 (hereinafter "MacCuish"); and (iii) rejected claims 8, 13-15, 23, and 28-30 under 35 U.S.C. §103(a) as being unpatentable over Ye in view of Lundahl, Farnham, and further in view of U.S. Patent Application Publication No. 2004/0098617 (hereinafter "Sekar").

Applicants note that although the final Office Action indicates claim 31 as having been rejected under §101, the Examiner indicated in a telephone interview with Applicant's attorney, David E. Shifren, Reg. No. 59,329, on October 9, 2007, that the §101 rejection of claim 31 is withdrawn because the Applicants amended the claim as directed by the Examiner in the previous Office Action.

With regard to the rejection of claims 1-6, 9, 11, 12, 16-21, 24, 26, 27, and 31 under 35 U.S.C. §103(a) as being unpatentable over Ye in view of Lundahl and Farnham, Applicants respectfully assert that the collective teaching of Ye, Lundahl, and Farnham fail to suggest or render obvious at least the elements of independent claims 1, 16, and 31 of the present invention. For at least this reason, a *prima facie* case of obviousness has not been established.

Applicants note that a proper *prima facie* case of obviousness requires that the cited references when combined must "teach or suggest all the claim limitations," and that there be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references or to modify the reference teachings. See MPEP §706.02(j).

Independent claim 1 recites a method for monitoring abnormalities in a data stream. A plurality of objects in the data stream are received. One or more clusters are created from the plurality of objects. At least a portion of each of the one or more clusters comprise statistical data representative of the respective cluster. The statistical data comprises a time-sensitive weight for each of the plurality of objects in each of the one or more clusters. The time-sensitive weight has a value that decreases at a specified rate such that more recently received objects are assigned a higher priority. The one or more clusters are condensed for maintenance at a high level of granularity as one or more cluster droplets. It is determined from the statistical data whether each of the one or more clusters is abnormal when compared to defined statistics. At least one of the one or more clusters is reported as an abnormal cluster of objects in the data stream. Independent claims 16 and 31 recite additional aspects of the present invention having similar limitations.

The Examiner concedes that Ye and Lundahl fail to explicitly disclose the limitation wherein the statistical data comprises a time-sensitive weight for each of the plurality of objects in each of the one or more clusters, the time-sensitive weight having a value that decreases at a specified rate such that more recently received objects are assigned a higher priority, and wherein the one or more clusters are condensed for maintenance at a high level of granularity as one or more cluster droplets. See final Office Action pg. 4, last paragraph. However, the Examiner proceeds to argue that Farnham remedies the deficient teaching of Ye and Lundahl. The Examiner states that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the concept of applying time sensitive weights as disclosed by Farnham to each of the data objects of Ye/Lundahl. One would have been motivated to do so in order to increase the accuracy of insuring that the most current data is being utilized." See final Office Action, pg. 9, first full paragraph. Applicants respectfully submit that the Examiner's argument supporting a motivation to combine is a conclusory statement of the sort rejected by both the Federal Circuit and the U.S. Supreme Court. See <u>KSR v. Teleflex</u>, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (U.S., Apr. 30, 2007), quoting <u>In re Kahn</u>, 441 F. 3d 977, 988 (Fed. Cir. 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."). Applicants

respectfully assert that the Examiner has failed to present any solid evidence supporting a motivation to combine. Farnham does not remedy the deficiencies of Ye and Lundahl. It follows that the combination of the cited references fail to teach or suggest the limitations of the recited claims.

First, Farnham teaches a computer system that models human memory by deriving associations between objects, events, and the context of the computer user or users, not a method for monitoring abnormalities in a data stream as recited in the claims. See Farnham Abstract. Farnham is not concerned with monitoring abnormalities in any sense; rather Farnham discloses automatically determining context associations between user computer activities, computer objects, and other events. See Farnham, para. [0032].

Second and more specifically, Applicants assert that Farnham does not teach statistical data comprising a time-sensitive weight for each of the plurality of objects in each of the one or more clusters, the time-sensitive weight having a value that decreases at a specified rate such that more recently received objects are assigned a higher priority. The Examiner cites Farnham [0075], which describes an association control panel where a user can select the weight, event count, importance scaling, recency, duration, time scaling, time decay, and display threshold of an association. Applicants respectfully submit that Farnham does not teach the time-sensitive weight as recited in the claims. The recited claims are concerned with monitoring abnormalities in a data stream. In one illustrative embodiment, the Applicants disclose a stream clustering technique that attributes greater importance to recent clusters. See Specification at pg. 11, lines 12-24. In this embodiment, Applicants apply this technique to replace inactive clusters with new clusters for the purpose of analyzing evolving data streams. Applicants further disclose, decay statistics which relate to weights of data points and the time at which a last data point is added to a cluster. Decay rate is disclosed in one illustrative embodiment of the Applicants' Specification at page 11, line 25, to page 13, line 10. When read in its entirety, the time-sensitive weight as described in the Specification is not taught by Farnham.

Next, Farnham does not teach that the one or more clusters are condensed for maintenance at a high level of granularity as one or more cluster droplets. The Examiner cites Farnham [0109], where Farnham discloses merging clusters where the similarity between every pair of clusters is the

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local similarity between the people in those clusters. Applicants assert that this disclosure fails to teach the recited claim limitations. As stated above, Farnham is concerned with associating objects and events to simulate human memory. Further, Farnham's reference to clusters is with regard to memory associations, not monitoring abnormalities in data streams.

Recited claim 1 defines that the one or more clusters are condensed for maintenance at a high level of granularity as one or more cluster droplets. Applicants disclose cluster maintenance and cluster droplets in one illustrative embodiment at page 9, lines 1-24 of the Specification. Farnham does not teach cluster maintenance as clearly described in the Specification. Farnham makes no mention of cluster droplets nor does Farnham mention condensed clusters for maintenance at a high level of granularity.

Applicants respectfully request that the Examiner consider the general subject matter covered by the recited claims. The recited claims define a method of monitoring abnormalities in a data stream and Farnham discloses a computer system that models human memory by deriving associations; therefore, the subject matter disclosed in Farnham is not analogous to the recited claims. Furthermore, Farnham does not disclose any matter remotely similar to the recited claims. It follows that no person having ordinary skill in the art would have the suggestion or motivation to combine the cited references.

For at least these reasons, Applicants submit that the cited references do not teach the limitations of independent claims 1, 16, and 31. It follows that dependent claims 2-6, 9, 11, 12, 17-21, 24, 26, and 27 are patentable at least by virtue of their dependency from independent claims 1 and 16. Dependent claims 2-6, 9, 11, 12, 17-21, 24, 26, and 27 also recite patentable subject matter in their own right. Accordingly, withdrawal of the rejection to claims 1-6, 9, 11, 12, 16-21, 24, 26, 27 and 31 under 35 U.S.C. §103(a) is therefore respectfully requested.
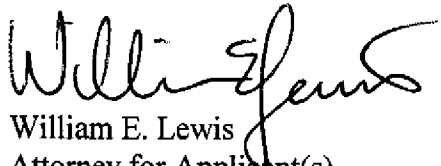
With regard to the rejection of claims 7, 10, 22, and 25 under 35 U.S.C. §103(a) as being unpatentable over Ye in view of Lundahl, Farnham, and MacCuish, Applicants respectfully assert that MacCuish fails to remedy the deficiencies of Ye, Lundahl, and Farnham as provided above, and thus such claims are patentable at least by virtue of their dependency from independent claims 1 and 16. Claims 7, 10, 22, and 25 also recite patentable subject matter in their own right. Accordingly,

withdrawal of the rejection to claims 7, 10, 22, and 25 under 35 U.S.C. §103(a) is therefore respectfully requested.

With regard to the rejection of claims 8, 13-15, 23, and 28-30 under 35 U.S.C. §103(a) as being unpatentable over Ye in view of Lundahl, Farnham, and Sekar, Applicants respectfully assert that Sekar fails to remedy the deficiencies of Ye, Lundahl, and Farnham as provided above, and thus such claims are patentable at least by virtue of their dependency from independent claims 1 and 16. Claims 8, 13-15, 23, and 28-30 also recite patentable subject matter in their own right. Accordingly, withdrawal of the rejection to claims 8, 13-15, 23, and 28-30 under 35 U.S.C. §103(a) is therefore respectfully requested.

In view of the above, Applicants believe that claims 1-31 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,

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